Claims.

1. An automotive engine oil comprising a base oil and an antiwear additive system comprising an ester which is the reaction product of
(a) at least one polyfunctional alcohol;
(b) a dimer fatty acid; and
(c) optionally at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms
with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)
NPI = total number of carbon atoms * molecul. weight
number of carboxylate groups x 100
of at least 500.

2. An automotive engine oil comprising a base oil and an antiwear additive system comprising an ester which is the reaction product of
(a) at least one polyfunctional alcohol;
(b) a dimer fatty acid; and
(c) at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms
with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)
NPI = total number of carbon atoms * molecul. weight
number of carboxylate groups x 100
of at least 500.

3. An automotive engine oil according to either of claims 1 and 2 wherein (c) is an aliphatic dicarboxylic acid having 5 to 18 carbon atoms.

4. An automotive engine oil according to any of claims 1 to 3 wherein the polyfunctional alcohol is a polyol of formula R(OH)n where n is an integer which ranges from 1 to 10 and R is a hydrocarbon chain of 2 to 15 carbon atoms where the polyol is of molecular weight in the range from 50 to 650.

5. An automotive engine oil according to any of claims 1 to 4 wherein the resultant ester has a kinematic viscosity at 100^0 C of 900 to 4000 mm^2/s.

6. An automotive engine oil according to any of claims 1 to 5 wherein the resultant ester has an NPI value of at least 900.

7. An automotive engine oil according to any of claims 1 to 6 wherein the resultant ester has an average molecular weight of at least 3000.

8. An automotive engine oil according to any of claims 1 to 7 wherein the resultant ester is the reaction product of neopentylglycol with dimer acid and azeleic acid.

9. An automotive engine oil according to any of claims 1 to 8 wherein the antiwear additive system further comprises a phosphorus-containing and/or sulphur-containing antiwear additive.

10. An automotive engine oil according to claim 9 wherein the further antiwear additive is both a phosphorus-containing and sulphur-containing additive.

11. An automotive engine oil according to either of claims 9 or 10 wherein the futher antiwear additive is zinc dialkyl dithiophosphate

12. A method of reducing wear in an automotive engine by the use of an automotive engine oil comprising a base oil and an antiwear additive system comprising an ester which is the reaction product of
(a) at least one polyfunctional alcohol;
(b) a dimer fatty acid; and
(c) optionally at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms
with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)
NPI = $\frac{\text{total number of carbon atoms * molecul. weight}}{\text{number of carboxylate groups x 100}}$
of at least 500.

13. Use of an automotive engine oil comprising a base oil and an antiwear additive system comprising an ester which is the reaction product of
(a) at least one polyfunctional alcohol;
(b) a dimer fatty acid; and

(c) optionally at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms

with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)

NPI = total number of carbon atoms * molecul. weight
number of carboxylate groups x 100

of at least 500 to reduce wear in an automotive engine.

14. Use of an antiwear additive system comprising an ester which is the reaction product of

(a) at least one polyfunctional alcohol;

(b) a dimer fatty acid; and

(c) optionally at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms

with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)

NPI = total number of carbon atoms * molecul. weight
number of carboxylate groups x 100

of at least 500 in an automotive engine oil.

15. A method of reducing wear in an automotive engine by the addition of an automotive engine oil comprising a base oil and an ester which is the reaction product of

(a) at least one polyfunctional alcohol;

(b) a dimer fatty acid; and

(c) optionally at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms

with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)

NPI = total number of carbon atoms * molecul. weight
number of carboxylate groups x 100

of at least 500 wherein the automotive engine oil has a phosphorus level of no more than 0.08%.

16. An antiwear additive system comprising an ester which is the reaction product of
(a) at least one polyfunctional alcohol;
(b) a dimer fatty acid; and
(c) optionally at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 7 to 24 carbon atoms and an aliphatic monofunctional alcohol having 7 to 24 carbon atoms
with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)
NPI = $\frac{\text{total number of carbon atoms * molecul. weight}}{\text{number of carboxylate groups x 100}}$
of at least 500.

17. An automotive engine comprising an automotive engine oil comprising a base oil and an antiwear additive system comprising an ester which is the reaction product of
(a) at least one polyfunctional alcohol;
(b) a dimer fatty acid; and
(c) optionally at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms
with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI)
NPI = $\frac{\text{total number of carbon atoms * molecul. weight}}{\text{number of carboxylate groups x 100}}$
of at least 500.